# **SIEMENS**

Data sheet 3RQ3118-1AB01



Output coupler with plug-in Relay, 1 CO, hard gold-plated screw terminal 24 V AC/DC Enclosure width 6.2 mm Thermal current 6A  $\,$ 

product brand name	SIRIUS
product category	SIRIUS 3RQ3 coupling relays in slim design
product designation	Coupling relays with plug-in relay
design of the product	Output coupling link
product type designation	3RQ3
General technical data	
display version LED	Yes
product feature protective coating on printed-circuit board	No
product component	
<ul> <li>relay output</li> </ul>	Yes
semi-conductor output	No
consumed active power	0.3 W
insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value	300 V
surge voltage resistance rated value	4 kV
maximum permissible voltage for protective separation	
<ul> <li>between control and auxiliary circuit</li> </ul>	300 V
percental drop-out voltage related to the input voltage	10 %
protection class IP	IP20
flammability class of enclosure material	UL94 V-0
shock resistance	
• according to IEC 60068-2-27	sinusoidal half-wave 15g / 11 ms
operating frequency maximum	72 000 1/h
switching behavior	monostable
mechanical service life (operating cycles) typical	10 000 000
thermal current	6 A
reference code according to IEC 81346-2	К
Substance Prohibitance (Date)	03/25/2015
Control circuit/ Control	
control supply voltage at AC	
• at 50 Hz rated value	24 V
at 60 Hz rated value	24 V
control supply voltage frequency	
• 1 rated value	50 Hz
• 2 rated value	60 Hz
control supply voltage at DC rated value	
•	24 V
operating range factor control supply voltage rated value at DC	
• initial value	0.8
• full-scale value	1.25

operating range factor control supply voltage rated value at AC at 50 Hz	
• initial value	0.8
full-scale value	
	1.25
operating range factor control supply voltage rated value at AC at 60 Hz	
• initial value	0.8
• full-scale value	1.25
ON-delay time	
at AC maximum	12 ms
at DC maximum	12 ms
OFF-delay time maximum	14 ms
Mechanical data	
product component plug-in socket	Yes
design of the relay operating mechanism	poled
Short-circuit protection	
design of the fuse link for short-circuit protection of the auxiliary	fuse gG: 4 A
switch required	
Auxiliary circuit	
type of switching contact	Changeover contact
material of switching contacts	AgSnO2 hard gold-plated
number of CO contacts for auxiliary contacts	1
operational current of auxiliary contacts at AC-15	
• at 24 V	3 A
• at 250 V	3 A
operational current of auxiliary contacts at DC-13	
● at 24 V	1 A
● at 125 V	0.2 A
• at 250 V	0.1 A
contact reliability of auxiliary contacts	one incorrect switching operation of 100 million switching operations (5 V, 1
	mA)
Main aireuit	
Main circuit	ACIDO
type of voltage	AC/DC
type of voltage Inputs/ Outputs	
type of voltage Inputs/ Outputs property of the output short-circuit proof	No
type of voltage Inputs/ Outputs property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz	
type of voltage Inputs/ Outputs property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13	No 3 A
type of voltage Inputs/ Outputs property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V	No 3 A 1 A
type of voltage Inputs/ Outputs  property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13  • at 24 V • at 125 V	No 3 A 1 A 0.2 A
type of voltage Inputs/ Outputs  property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz  ampacity of the output relay at DC-13  • at 24 V  • at 125 V  • at 250 V	No 3 A 1 A
type of voltage Inputs/ Outputs property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 125 V • at 250 V  Electromagnetic compatibility	No 3 A 1 A 0.2 A 0.1 A
type of voltage Inputs/ Outputs  property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz  ampacity of the output relay at DC-13  • at 24 V  • at 125 V  • at 250 V  Electromagnetic compatibility  EMC emitted interference according to IEC 60947-1	No 3 A  1 A 0.2 A 0.1 A  ambience A (industrial sector)
type of voltage Inputs/ Outputs  property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz  ampacity of the output relay at DC-13  • at 24 V  • at 125 V  • at 250 V  Electromagnetic compatibility  EMC emitted interference according to IEC 60947-1  EMC immunity according to IEC 60947-1	No 3 A 1 A 0.2 A 0.1 A
type of voltage Inputs/ Outputs  property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13  • at 24 V  • at 125 V  • at 250 V  Electromagnetic compatibility  EMC emitted interference according to IEC 60947-1  EMC immunity according to IEC 60947-1  conducted interference	No 3 A  1 A 0.2 A 0.1 A  ambience A (industrial sector) corresponds to degree of severity 3
type of voltage Inputs/ Outputs  property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13  • at 24 V  • at 125 V  • at 250 V  Electromagnetic compatibility  EMC emitted interference according to IEC 60947-1  EMC immunity according to IEC 60947-1  conducted interference  • due to burst according to IEC 61000-4-4	No 3 A  1 A 0.2 A 0.1 A  ambience A (industrial sector) corresponds to degree of severity 3  2 kV
type of voltage Inputs/ Outputs  property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz  ampacity of the output relay at DC-13  • at 24 V  • at 125 V  • at 250 V  Electromagnetic compatibility  EMC emitted interference according to IEC 60947-1  EMC immunity according to IEC 60947-1  conducted interference  • due to burst according to IEC 61000-4-4  • due to conductor-earth surge according to IEC 61000-4-5	No 3 A  1 A 0.2 A 0.1 A  ambience A (industrial sector) corresponds to degree of severity 3  2 kV 2 kV
type of voltage Inputs/ Outputs  property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13  • at 24 V  • at 125 V  • at 250 V  Electromagnetic compatibility  EMC emitted interference according to IEC 60947-1  EMC immunity according to IEC 60947-1  conducted interference  • due to burst according to IEC 61000-4-4	No 3 A  1 A 0.2 A 0.1 A  ambience A (industrial sector) corresponds to degree of severity 3  2 kV
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type of voltage Inputs/ Outputs  property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13  • at 24 V • at 125 V • at 250 V  Electromagnetic compatibility  EMC emitted interference according to IEC 60947-1  EMC immunity according to IEC 60947-1  conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5  field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2  Display	No 3 A  1 A 0.2 A 0.1 A  ambience A (industrial sector) corresponds to degree of severity 3  2 kV 2 kV 1 kV
type of voltage Inputs/ Outputs  property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13  • at 24 V • at 125 V • at 250 V  Electromagnetic compatibility  EMC emitted interference according to IEC 60947-1  EMC immunity according to IEC 60947-1  conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5  field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2  Display display version as status display by LED	No 3 A  1 A 0.2 A 0.1 A  ambience A (industrial sector) corresponds to degree of severity 3  2 kV 2 kV 1 kV  10 V/m 6 kV contact discharge / 8 kV air discharge
type of voltage Inputs/ Outputs  property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13  • at 24 V • at 125 V • at 250 V  Electromagnetic compatibility  EMC emitted interference according to IEC 60947-1  EMC immunity according to IEC 60947-1  conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5  field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2  Display	No 3 A  1 A 0.2 A 0.1 A  ambience A (industrial sector) corresponds to degree of severity 3  2 kV 2 kV 1 kV  10 V/m 6 kV contact discharge / 8 kV air discharge
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type of voltage Inputs/ Outputs  property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13  • at 24 V • at 125 V • at 250 V  Electromagnetic compatibility  EMC emitted interference according to IEC 60947-1  EMC immunity according to IEC 60947-1  conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5  field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2  Display  display version as status display by LED  Connections/ Terminals  product function removable terminal type of electrical connection for auxiliary and control circuit	No 3 A  1 A 0.2 A 0.1 A  ambience A (industrial sector) corresponds to degree of severity 3  2 kV 2 kV 1 kV  10 V/m 6 kV contact discharge / 8 kV air discharge
type of voltage Inputs/ Outputs  property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13  • at 24 V  • at 125 V  • at 250 V  Electromagnetic compatibility  EMC emitted interference according to IEC 60947-1  EMC immunity according to IEC 60947-1  conducted interference  • due to burst according to IEC 61000-4-4  • due to conductor-earth surge according to IEC 61000-4-5  • due to conductor-conductor surge according to IEC 61000-4-5  field-based interference according to IEC 61000-4-3  electrostatic discharge according to IEC 61000-4-2  Display  display version as status display by LED  Connections/ Terminals  product function removable terminal  type of electrical connection for auxiliary and control circuit wire length	No 3 A  1 A 0.2 A 0.1 A  ambience A (industrial sector) corresponds to degree of severity 3  2 kV 2 kV 1 kV  10 V/m 6 kV contact discharge / 8 kV air discharge  LED green  No screw-type terminals
type of voltage Inputs/ Outputs  property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13  • at 24 V  • at 125 V • at 250 V  Electromagnetic compatibility  EMC emitted interference according to IEC 60947-1  EMC immunity according to IEC 60947-1  conducted interference  • due to burst according to IEC 61000-4-4  • due to conductor-earth surge according to IEC 61000-4-5  • due to conductor-conductor surge according to IEC 61000-4-5  field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2  Display  display version as status display by LED  Connections/ Terminals  product function removable terminal type of electrical connection for auxiliary and control circuit wire length • at AC maximum	No 3 A  1 A 0.2 A 0.1 A  ambience A (industrial sector) corresponds to degree of severity 3  2 kV 2 kV 1 kV  10 V/m 6 kV contact discharge / 8 kV air discharge  LED green  No screw-type terminals  500 m
Inputs/ Outputs  property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13  • at 24 V  • at 125 V  • at 250 V  Electromagnetic compatibility  EMC emitted interference according to IEC 60947-1  EMC immunity according to IEC 60947-1  conducted interference  • due to burst according to IEC 61000-4-4  • due to conductor-earth surge according to IEC 61000-4-5  • due to conductor-conductor surge according to IEC 61000-4-5  field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2  Display  display version as status display by LED  Connections/ Terminals  product function removable terminal type of electrical connection for auxiliary and control circuit wire length  • at AC maximum  • at DC maximum	No 3 A  1 A 0.2 A 0.1 A  ambience A (industrial sector) corresponds to degree of severity 3  2 kV 2 kV 1 kV  10 V/m 6 kV contact discharge / 8 kV air discharge  LED green  No screw-type terminals
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Inputs/ Outputs  property of the output short-circuit proof  ampacity of the output relay at AC-15 at 250 V at 50/60 Hz  ampacity of the output relay at DC-13  • at 24 V  • at 125 V  • at 250 V  Electromagnetic compatibility  EMC emitted interference according to IEC 60947-1  EMC immunity according to IEC 60947-1  conducted interference  • due to burst according to IEC 61000-4-4  • due to conductor-earth surge according to IEC 61000-4-5  • due to conductor-conductor surge according to IEC 61000-4-5  field-based interference according to IEC 61000-4-3  electrostatic discharge according to IEC 61000-4-2  Display  display version as status display by LED  Connections/ Terminals  product function removable terminal  type of electrical connection for auxiliary and control circuit  wire length  • at AC maximum  • at DC maximum  type of connectable conductor cross-sections  • solid	No 3 A  1 A 0.2 A 0.1 A  ambience A (industrial sector) corresponds to degree of severity 3  2 kV 2 kV 1 kV  10 V/m 6 kV contact discharge / 8 kV air discharge  LED green  No screw-type terminals  500 m 1 000 m
Inputs/ Outputs  property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13  • at 24 V  • at 250 V  Electromagnetic compatibility  EMC emitted interference according to IEC 60947-1  EMC immunity according to IEC 60947-1  conducted interference  • due to burst according to IEC 61000-4-4  • due to conductor-earth surge according to IEC 61000-4-5  • due to conductor-conductor surge according to IEC 61000-4-5  field-based interference according to IEC 61000-4-3  electrostatic discharge according to IEC 61000-4-2  Display  display version as status display by LED  Connections/ Terminals  product function removable terminal  type of electrical connection for auxiliary and control circuit  wire length  • at AC maximum  • at DC maximum  type of connectable conductor cross-sections	No 3 A  1 A 0.2 A 0.1 A  ambience A (industrial sector) corresponds to degree of severity 3  2 kV 2 kV 1 kV  10 V/m 6 kV contact discharge / 8 kV air discharge  LED green  No screw-type terminals  500 m 1 000 m

connectable conductor cross-section	
• solid	0.25 2.5 mm²
finely stranded with core end processing	0.25 1.5 mm²
AWG number as coded connectable conductor cross section	
• solid	20 14
tightening torque with screw-type terminals	0.5 0.6 N·m
Installation/ mounting/ dimensions	
mounting position	any
fastening method	snap-on mounting
height	93 mm
width	6.2 mm
depth	76 mm
required spacing	
<ul><li>with side-by-side mounting</li></ul>	
— forwards	0 mm
— backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	0 mm
<ul> <li>for grounded parts</li> </ul>	
— forwards	0 mm
— backwards	0 mm
— upwards	0 mm
— at the side	0 mm
— downwards	0 mm
for live parts	
— forwards	0 mm
— backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	0 mm
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
<ul> <li>during operation</li> </ul>	-25 +60 °C
during storage	-40 +85 °C
during transport	-40 +85 °C
relative humidity during operation	10 95 %
Approvals Certificates	

#### Approvals Certificates

### **General Product Approval**







Confirmation





General Product Approval

EMV

**Test Certificates** 

Marine / Shipping

other

EAC



<u>KC</u>

Type Test Certificates/Test Report



Confirmation

## Environment

Environmental Confirmations

#### Further information

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RQ3118-1AB01

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RQ3118-1AB01

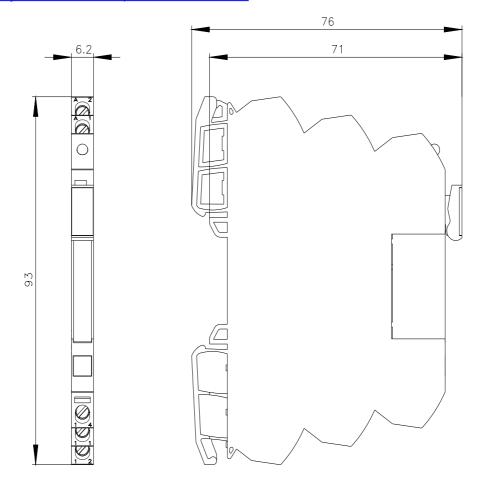
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RQ3118-1AB01

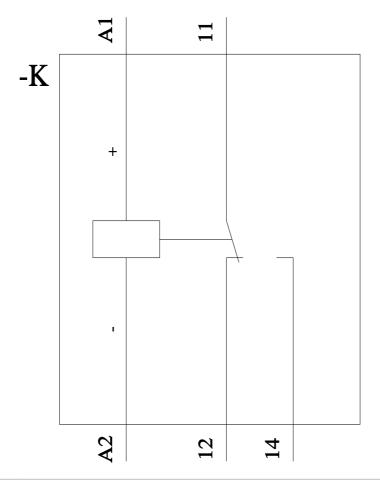
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RQ3118-1AB01&lang=en

**Characteristic: Derating** 

https://support.industry.siemens.com/cs/ww/en/ps/3RQ3118-1AB01/manual





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